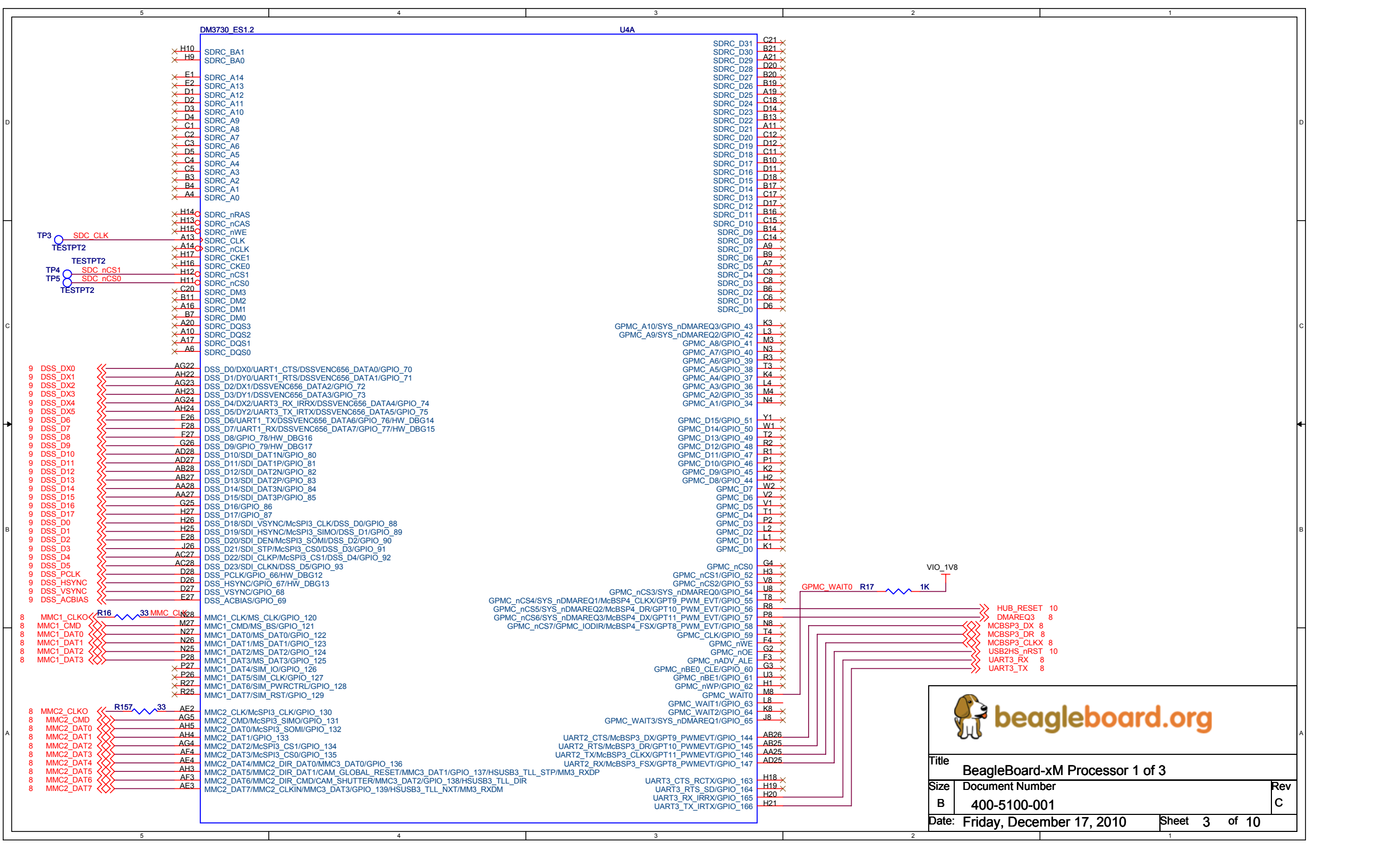


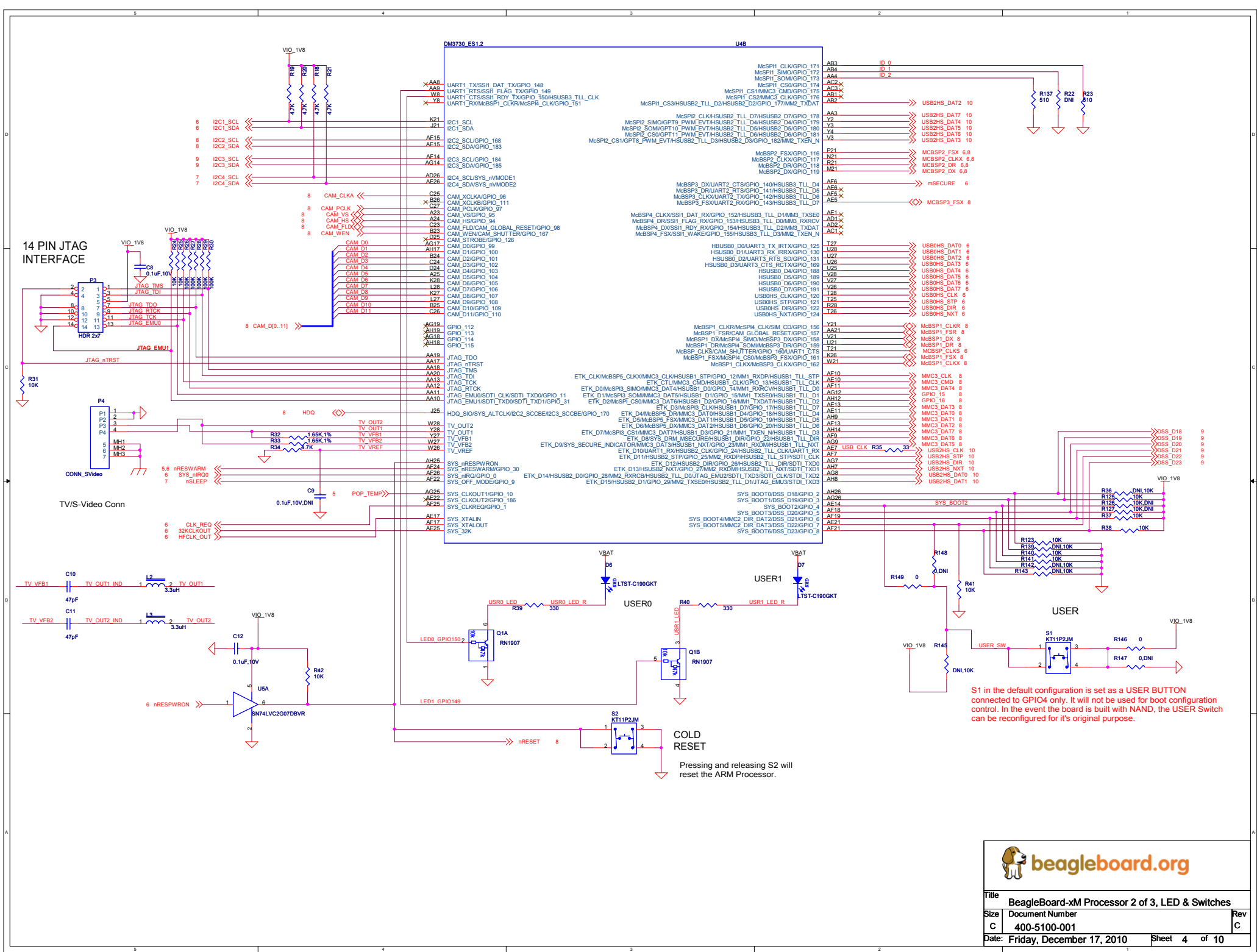
REV	DESCRIPTION	DATE	BY
A	FEATURE CHANGES 1. Added 4 port LS/FS/HS HUB to provide four USB Host ports. 2. Made connection for the 1.8V rail on the USB PHY to go to VAUX2. 3. Added camera connector that is compatible to the Leopard Imaging Camera modules. 4. Added power rmanagement capabilities to allow shut down of serial port, DVI-D, and power LED. 5. Switched to DM3730 processor and 512MB memory. 6. Added ability to turn off 26MHZ oscillator. 7. Increased overall board size to accomodate the changes. 8. Changed serial connector to a female DB9. 9. Added a 10/100 Ethernet port.	8/31/09	GC
A1	1. Disabled the DVI-D powerdown due to use of wrong GPIO pin. Pin is in the MMC group and it cannot be switched to 1.8V without impacting the SD card slot. 2. Disables HUB reset due to a timing issue with SW. When active the LAN9514 would not work correctly and the Ethernet function is broken.	5/13/10	GC
A2	1. Changed C9 to DNI and changed R34, 4.7K to installed to enable the S-Video operation.	6/15/10	GC
A3	NO MAJOR FEATURE CHANGES. 1. PCB Layout changes. 2. Added R157 in series with MMC2_CLK. 3. Added R158 to isolate shunt FET to reduce power in DC mode. 4. Added optional pullup resistors on I2C2_SCL and I2C_SDA into the layout. 5. Moved DVI_PUP signal to TPS65950. Previous location could not be used due to a conflict with the MMC function on the pins.	6/23/10	GC
B	NO MAJOR FEATURE CHANGES. 1. Changed DM3730 from an ES1.0 to a ES1.1.	10/26/2010	GC
C	REPLACED OVERVOLTAGE CIRCUIT 1. Deleted U19, U31, and U32. 2. Deleted C214 and C212. 3. Added new U31 and U32, a NCP349MNAE overvoltage protection device. ADDED DC POWER DETECTION 1. Moved Q2A to level shift nUSB_PWR. 2. Connected Q2A output to the TPS65950 GPIO as indication that the board is DC powered when LOW. CHANGED SD CONNECTOR DUE TO EOL OF CURRENT PART. 1. Replaced uSD connector with new part number. 2. Delete C188, R131, R133,R132,R134,R152,R153,R15,R144,R120,C211. CHANGED PROCESSOR TO ES1.2 CHANGED USB HUB DEFAULT MODE 1. Changed DC control of HUB to come up OFF. Requires SW to activate.	12/7/2010	GC

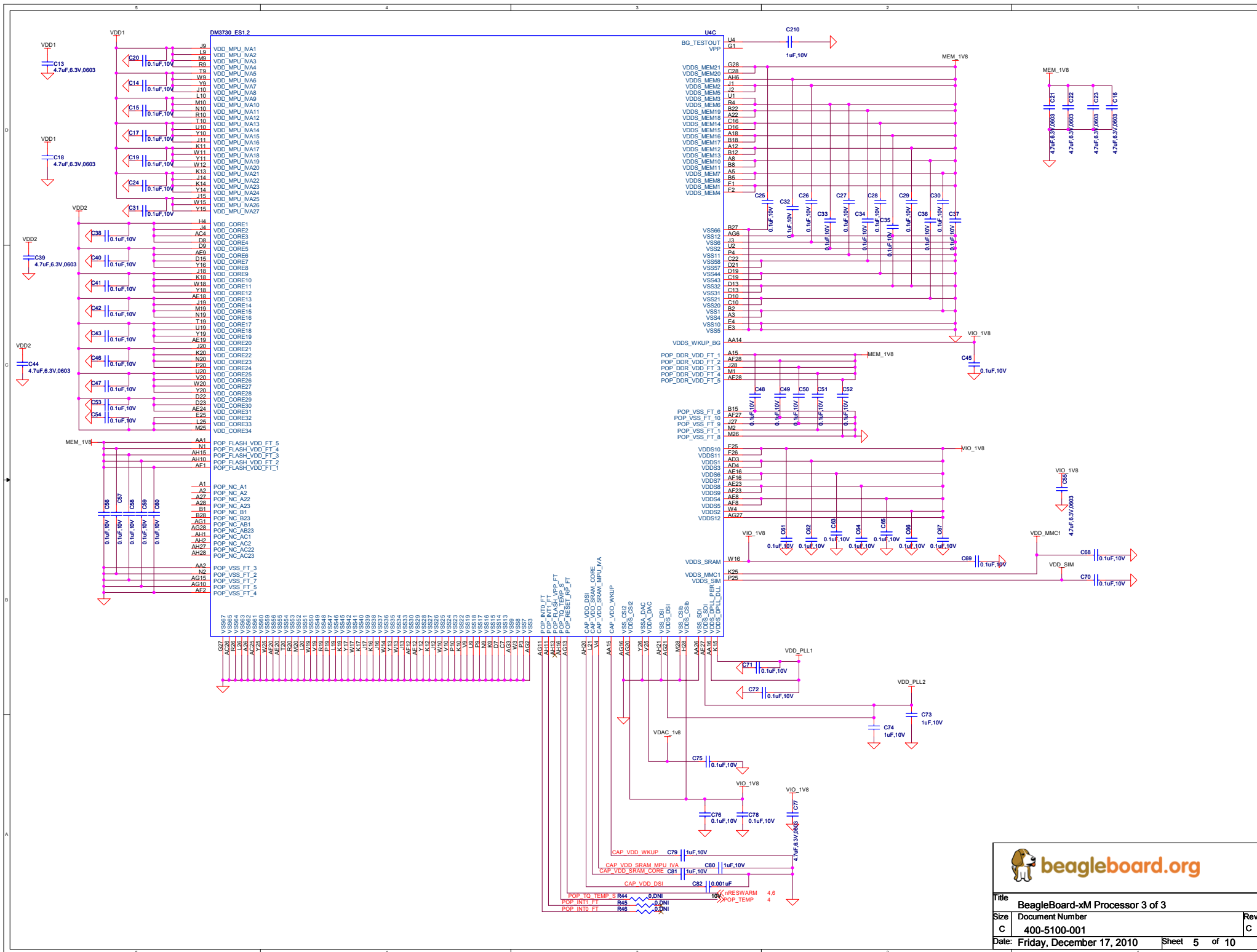
CONTENTS	
PAGE NO.	SCHEMATIC PAGE
1	COVER PAGE
2	USB OTG CONNECTOR AND MAIN POWER
3	PROCESSOR 1 OF 3
4	PROCESSOR 2 OF 3, JTAG, SWITCHES, LEDS, SVIDEO
5	PROCESSOR 3 OF 3
6	PMIC, AUDIO JACKS, CLOCKS
7	PMIC, POWER RAILS
8	MICROSD, RS232,CAMERA,EXPANSION
9	DVI-D, LCD EXPANSION
10	USB HOST, HUB, ETHERNET

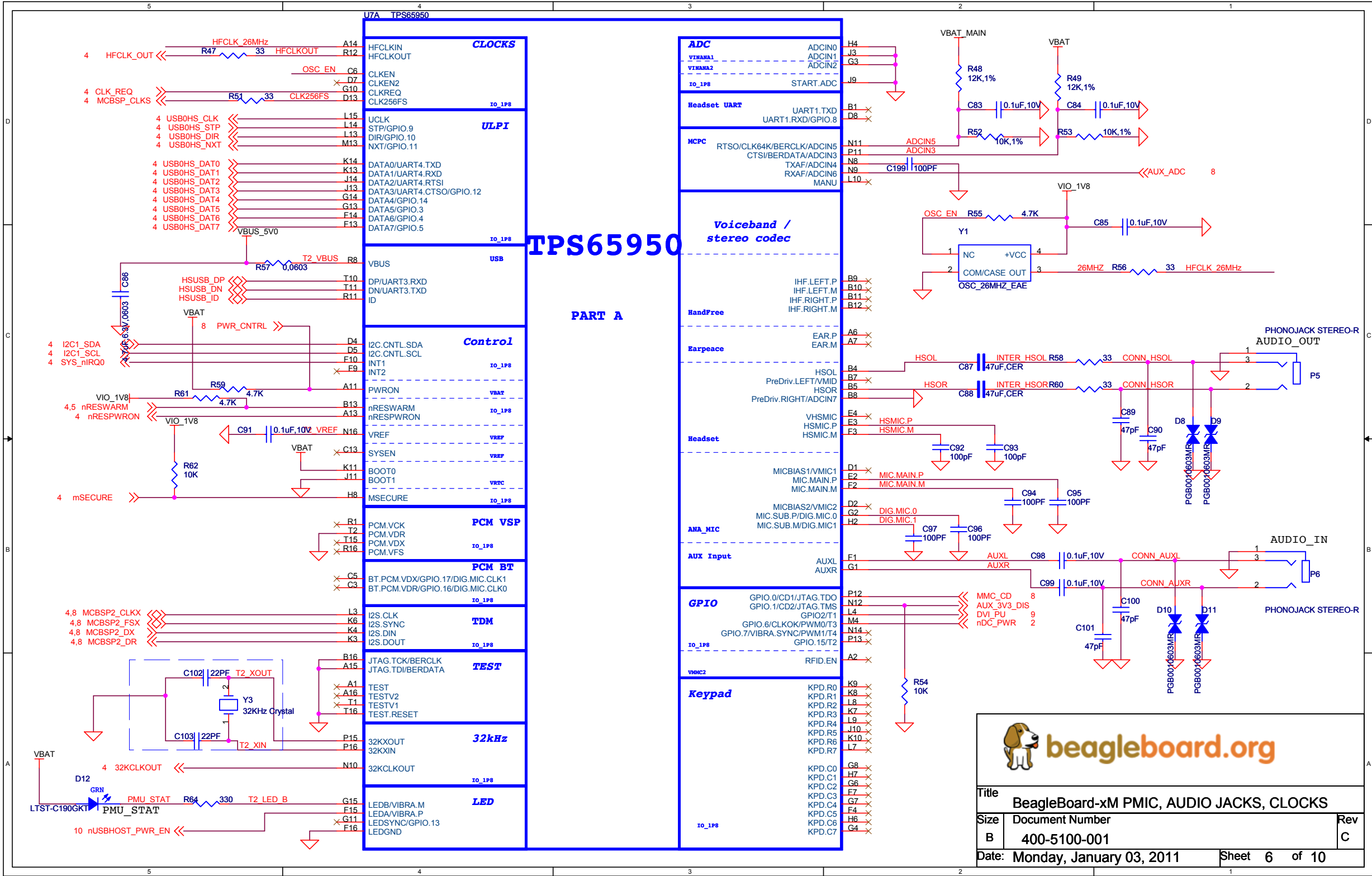
This schematic is ***NOT SUPPORTED*** and DOES NOT constitute a reference design. Only "community" support is allowed via resources at BeagleBoard.org/discuss.

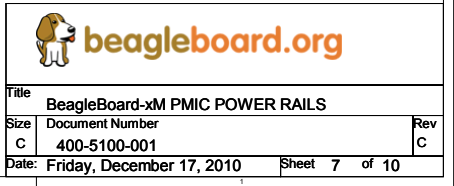
THERE IS NO WARRANTY FOR THIS DESIGN , TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE DESIGN "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE DESIGN IS WITH YOU. SHOULD THE DESIGN DESIGN PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

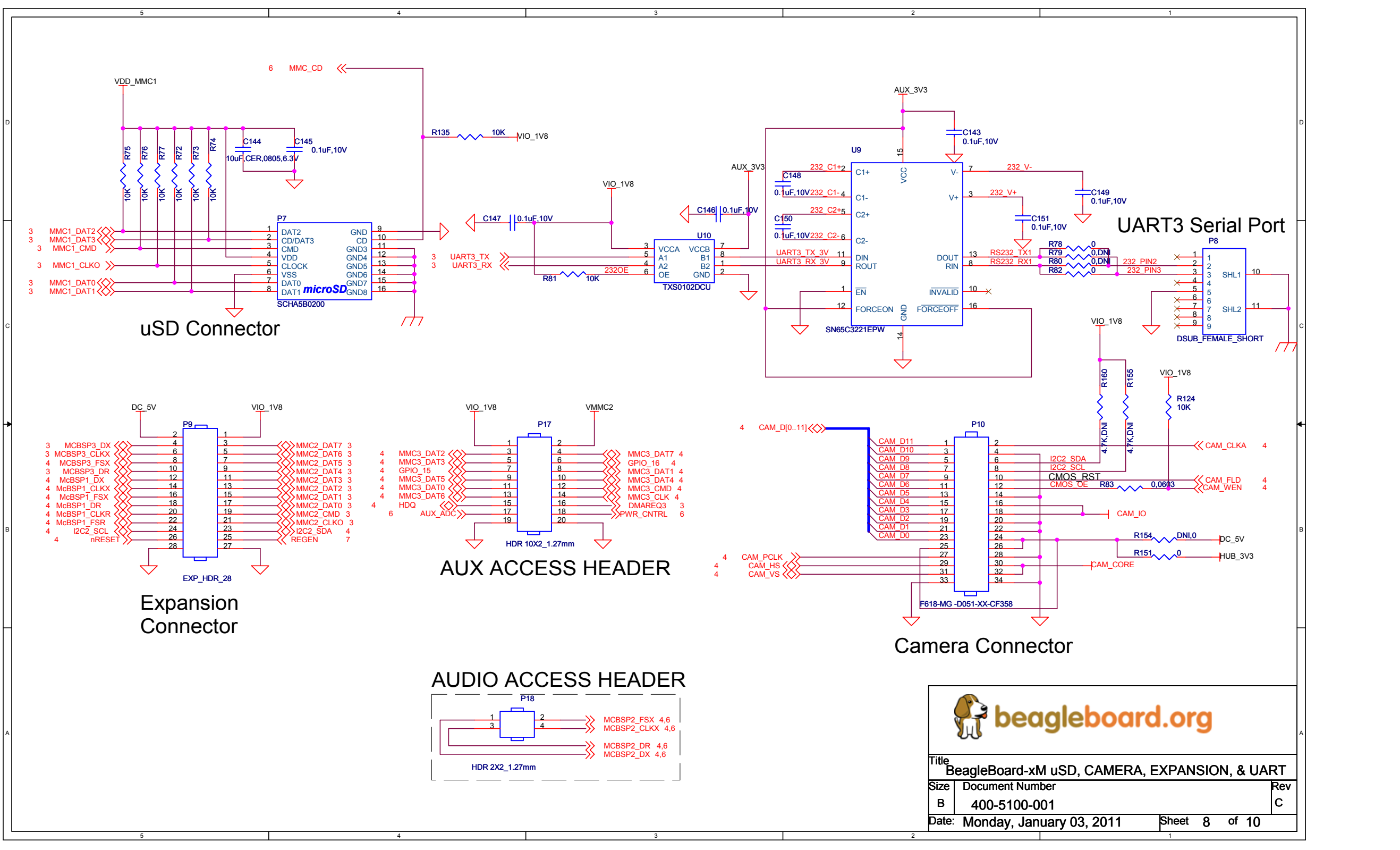












D

C

B

A

D

C

B

A



Title		
BeagleBoard-xM uSD, CAMERA, EXPANSION, & UART		
Size	Document Number	Rev
B	400-5100-001	C
Date:	Monday, January 03, 2011	Sheet 8 of 10

24BIT MODE ONLY

REFER TO THE PROCESSOR
TECHNICAL REFERENCE MANUAL
FOR OTHER MODES

BLUE

GREEN

RED

On the processor, there is a shift in the location of DSS0-5 and DSS18-23 that is required in order to run at the maximum frequency on the DSS interface. The naming of the signals take into account this shift. If there is a need to revert back to the standard configuration, remove RP7 and RP2 and install RP1 and RP5.

DVI-D Interface

LCD RGB Interface

DDC I2C Interface



beagleboard.org

Title BeagleBoard-xM DVI-D, LCD EXPANSION

Size Document Number

B 400-5100-001

Rev

C

Date: Friday, December 17, 2010

Sheet 9 of 10

